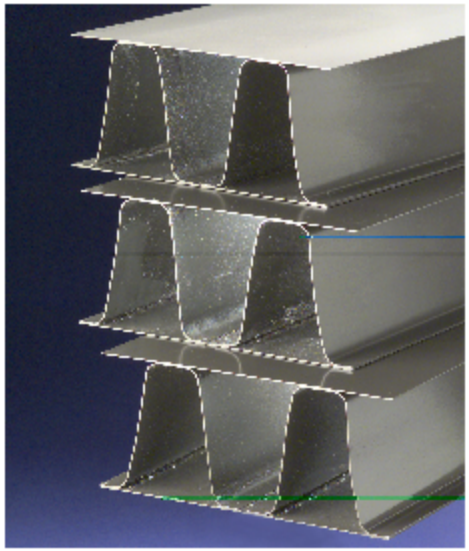
NASA Glenn Success Stories

Fabrication Processes for Intermetallic Materials (TiAl)

BF Goodrich Aerospace and Pratt & Whitney

TECHNOLOGY

Developed fabrication processes of the intermetallic alloy material titanium aluminide (TiAl) reduce production cost without degrading its best features.



Titanium aluminide truss core segments

COMMERCIAL APPLICATION

- Improved performance of aerospace planes
- Automotive applications in high-end, high-performance cars
- The process allows for potential commercial use in high-speed civil transport aircraft engines.

SOCIAL / ECONOMIC BENEFIT

- Reduces production costs of TiAl
- Easy to implement with today's production equipment
- Can produce more fuel-efficient cars.

NASA APPLICATIONS

- The use of this new material system will support the potential use of TiAl components for next generation space-vehicles such as the reusable launch vehicle, VentureStar

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